

APPENDIX B

QUANTATITIVE STUDIES IN LITERATURE REVIEWED

This material has been organized by method and then alphabetically by author to facilitate cross-referencing to the bibliography and to other tables in the text.

Study	Method	Topic	Sample size	Tests
Cronin et al. 1998	Citation analysis	Scientific communication; expanded notion of citation/cross-reference via the Web	5 search engines; 1,354 responses; journal articles	Descriptive statistics only
Harter 1996	Citation analysis	Awareness and use of e-journals	39–114 journal articles	Descriptive statistics only
Harter 1998	Citation analysis	Awareness and use of e-journals	39 journal articles	Update of Harter 1996
Hitchcock et al. 1997	Citation analysis	Hyperlinking	3 journal articles	Descriptive statistics only
Hurd, Blecic, and Vishwanatham 1999	Citation analysis	Molecular biologists' information use from library perspective (collections, etc.)	60 journal articles	Descriptive statistics only
Lindholm-Romantschuk and Warner 1996	Citation analysis	Information diffusion, humanities versus social sciences	14,368 journal articles	F tests on regression analysis, z-scores on difference of means
Qin, Lancaster, and Allen 1997	Citation analysis	Collaboration and interdisciplinary research in science	846 journal articles	Descriptive statistics only
Youngen 1997	Citation analysis	Physics preprints	4,110 journal articles	p < .05
Zhang 1998	Citation analysis	Internet resources in library science	1,175 journal articles	Not given
Kim 2000	Interviews	Motivations for hyperlinking	NA	Descriptive statistics only
Stewart 1996	Interviews	Chemists' use of e-journals for system design	39 people	T-test, 95% confidence
Walsh and Bayma 1996	Interviews	CMC among mathematicians, physicists, biologists, and chemists	67 people	Descriptive statistics only
Walsh and Bayma 1997	Interviews	CMC among mathematicians, physicists, biologists, and chemists	67 people	p > .05
Wood 1998	Interviews	Peer review	200 people	NA
Hahn 1998	Interviews, content analysis	Views of scientists as authors and editors of e-journals	NA	Descriptive statistics only
Adler et al. 1998	Interviews/diary study	Reading behavior in work contexts	15 people	NA
Doyle 1986	Interviews/lab study	Scientists' information-seeking behavior	45 people	Descriptive statistics only
O'Hara and Sellen 1997	Observation/lab study	Reading behavior, print versus online	10 people	Descriptive statistics only
Berge and Collins 1996	Survey	Readership of <i>IPCT Journal</i>	1,118 people	Descriptive statistics only
Blixrud and Jewell 1998	Survey	Library expenditures	108 people	Descriptive statistics only
Brown 1999	Survey	Scientists' information-seeking behavior	49 people	Descriptive statistics only

Study	Method	Topic	Sample size	Tests
Budd and Connaway 1997	Survey	Academics' use of networked information	651 people	Descriptive statistics only
Cohen 1996	Survey	Faculty CMC and productivity	888 people	Descriptive statistics only
Campanario 1996	Survey	Journal impact studies	18	Descriptive statistics only
Davis and Eisemon 1989	Survey	Scientific communication in four Asian countries	NA	$p < .05$
Goldfinch 2000	Survey	Readers' preferences for online journals in nuclear technology	500 people	Results significant at $p < .05$, $p < .01$ and $p < .001$
Gomes and Meadows 1998	Survey	Academics' perceptions of e-journals	120 people	Descriptive statistics only
Hamerslag 1998	Survey	Biomedical/medical researchers' use of e-journals	169 people	Descriptive statistics only
Harter and Park 2000	Survey	Scholarly journal policies concerning prior e-publication	202 people	$p < .01$
Hitchcock, Carr, and Hall 1998b	Survey	Characterization of STM online journals	83–115 people	Descriptive statistics only
Hurd and Weller 1997	Survey	University-based chemists' adoption of IT (multiple applications) in libraries	NA	Descriptive statistics only
Kaminer 1997	Survey	Academics' use of the Internet	NA	Descriptive statistics only
Lawson and Pelzer 1999	Survey	Promotion and tenure (librarians)	NA	Descriptive statistics only
Levitan 1979	Survey	Professional societies and journals	46	Descriptive statistics only
McEldowney 1995	Survey	Academics' attitudes toward e-publishing	77 people	Descriptive statistics only
McKnight and Price 1999	Survey	Authors' attitudes	537 people	Descriptive statistics only
Michailidis and Rada 1997	Survey	Scientific communication	10 people	$p < .05$, $p < .001$
Oppenheim, Greenhalgh, and Rowland 2000	Survey	Publishers' attitudes and behaviors	187 people	Descriptive statistics only
Pedersen and Stockdale 1999	Survey	Readers' attitudes	7 people	Descriptive statistics only
Pullinger 1999	Survey	Academic use of e-journals	70 people	Descriptive statistics only
Rusch-Feja and Siebeky 1999a, 1999b	Survey	Researchers' usage and acceptance of e-journals	1,042 people	Descriptive statistics only
Schauder 1994	Survey	Academics' attitudes toward e-publishing	743 people	NA
Singleton 1997	Survey	Physicists' attitudes as authors, readers, referees, and purchasers of e-journals	3,500 people	Chi square, significant at the .05 level
Speier et al 1999	Survey	Academics' perceptions of e-journals	1,364 people	NA
Spink, Robins, and Schamber 1998	Survey	Book reviews	NA	$p < .10$, $p < .05$, $p < .01$, $p < .001$; multiple results

Study	Method	Topic	Sample size	Tests
Swan 1999	Survey	Authors' attitudes	2,500 people	NA
Sweeney 2000	Survey	Academic attitudes toward peer review	62 people	Descriptive statistics only
Tenopir and King 1998, 2000	Survey	Publishing, authorship, readership, pricing, library services	13,591 people	Descriptive statistics only
Tombaugh 1984	Survey	CMC (conference) in science	NA	Descriptive statistics only
Tomney and Burton 1998	Survey	Academics' usage and attitudes toward e-journals	147 people	NA
Wood and Hurst 2000	Survey	Perceptions of online peer review in the biological sciences	76 people	Descriptive statistics only
Yu and Apps 2000	Survey	User behavior; methodological discussion of log file analysis	2,867 people	Descriptive statistics only
Björk and Turk 2000	Survey (Web-based)	Scientists' information-seeking behavior	236 people	$p > .01$
Kaminer and Braunstein 1998	Survey, log analysis, citation analysis	Impact of Internet on scholarly productivity	122 people	Descriptive statistics only
Samarajiva 1989	Survey/ interviews	Scientific communication in Third World countries	NA	Descriptive statistics only
Entlich et al. 1996	Survey/log analysis	User study (responses to a system), primarily chemists	39–161 people	Descriptive statistics only



The National Science Foundation promotes and advances scientific progress in the United States by competitively awarding grants for research and education in the sciences, mathematics and engineering.

To get the latest information about program deadlines, to download copies of NSF publications, and to access abstracts of awards, visit the NSF Web site at:

<http://www.nsf.gov>

Location:

**4201 Wilson Blvd.
Arlington, VA 22230**

For General Information (NSF Information Center):

(703) 292-1111

TDD (for the hearing-impaired):

(703) 292-5090

To Order Publications or Forms:

Send an e-mail to:

paperpubs@nsf.gov

or telephone:

(301) 947-2722

To Locate NSF Employees:

(703) 292-8183

The Foundation provides awards for research and education in the sciences and engineering. The awardee is wholly responsible for the conduct of such research and preparation of the results for publication. The Foundation, therefore, does not assume responsibility for the research findings or their interpretation.

The Foundation welcomes proposals from all qualified scientists and engineers and strongly encourages women, minorities, and persons with disabilities to compete fully in any of the research and education related programs described here. In accordance with Federal statutes, regulations, and NSF policies, no person on grounds of race, color, age, sex, national origin, or disability shall be excluded from participation in, be denied the benefits of, or be subject to discrimination under any program or activity receiving financial assistance from the National Science Foundation.

Facilitation Awards for Scientists and Engineers with Disabilities (FASSED) provide funding for special assistance or equipment to enable persons with disabilities (investigators and other staff, including student research assistants) to work on NSF projects. See the program announcement or contact the program coordinator at 703-292-8636.

The National Science Foundation has TDD (Telephonic Device for the Deaf) capability, which enables individuals with hearing impairment to communicate with the Foundation about NSF programs, employment, or general information. To access NSF TDD dial 703-292-5090; for FIRS, 1-800-877-8339.

